General

Guideline Title

Guideline for care of the patient receiving local anesthesia.

Bibliographic Source(s)

Ogg MJ, Conner RL. Guideline for care of the patient receiving local anesthesia. In: 2015 guidelines for perioperative practice. Denver (CO): Association of periOperative Registered Nurses (AORN); 2014. p. 513-24. [63 references]

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

Note from the Association of periOperative Nurses (AORN): The original guideline document provides guidance for the perioperative registered nurse (RN) caring for a patient who is receiving local anesthesia by injection, infiltration, or topical application. The original guideline document includes guidance for patient assessment, patient monitoring, recognition and treatment of local anesthetic systemic toxicity (LAST), assessment for local anesthetic allergies, and documentation of patient care. It is not the intent to address situations that require the services of an anesthesia professional or to substitute the services of a perioperative RN in those situations that require the services of an anesthesia professional.

I. The perioperative RN should perform a preoperative nursing assessment for the patient who will receive local anesthesia.
II. The perioperative RN should monitor and document the patient's physiological and psychological responses, identify nursing diagnoses based on assessment of the data, and implement the plan of care.
III. The perioperative RN should receive initial and ongoing education and competency verification on his or her understanding of local anesthesia pharmacology, calculation of total dose, contraindications, desired effects, adverse effects, and resuscitation.
IV. The perioperative RN should provide patient education regarding perioperative care of patients undergoing local anesthesia.
V. Policies and procedures for the care of the patient receiving local anesthesia should be developed, reviewed periodically, revised as necessary, and readily available in the practice setting.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Any condition requiring the use of local anesthesia by injection, infiltration, or topical application

Guideline Category

Evaluation

Management

Risk Assessment

Clinical Specialty

Nursing

Surgery

Intended Users

Advanced Practice Nurses

Nurses

Guideline Objective(s)

- To provide guidance for the perioperative registered nurse (RN) caring for a patient who is receiving local anesthesia by injection, infiltration, or topical application
- To provide guidance for patient assessment, patient monitoring, recognition and treatment of local anesthetic systemic toxicity (LAST), assessment for local anesthetic allergies, and documentation of patient care

Target Population

Patients who are receiving local anesthesia by injection, infiltration, or topical application

Interventions and Practices Considered

1. Preoperative nursing assessment
2. Monitoring and documentation of patient physiological and psychological responses
3. Initial and ongoing nursing education and competency verification on understanding of local anesthesia pharmacology, calculation of total dose, contraindications, desired effects, adverse effects, and resuscitation
4. Patient education regarding perioperative care
5. Development, periodic review and revision of policies and procedures for the care of the patient receiving local anesthesia

Major Outcomes Considered

- Adverse drug reactions
- Pain

- Anxiety

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Evidence Review

On April 15, 2013, a medical librarian conducted a systematic search of the databases MEDLINE®, Cumulative Index to Nursing and Allied Health Literature (CINAHL®), and the Cochrane Database of Systematic Reviews for meta-analyses, systematic reviews, randomized controlled and non-randomized trials and studies, case reports, reviews, and guidelines from government agencies and standards-setting bodies. The librarian also searched the Scopus® database, although not systematically. The search was limited to literature published in English since January 2006. At the time of the initial search, the librarian established weekly alerts on the search topics and until July 2014, presented relevant results to the lead author. During the development of this guideline, the author requested supplementary literature searches and additional literature that either did not fit the original search criteria or was discovered during the evidence-appraisal process.

Although the lead author's original search request encompassed both moderate sedation and local anesthesia, only literature relevant to the care and management of patients receiving local anesthesia was considered for inclusion in this document. Of the 862 sources deemed appropriate for consideration in the areas of moderate sedation and local anesthesia, 63 were identified as relevant to local anesthesia (see Figure 1 in the original guideline document for a flow diagram of literature search results). Germane search terms included *surgical procedures, analgesia, local anesthesia, topical anesthesia, local infiltration, lidocaine, bupivacaine, anxiety, anti-anxiety agents, drug hypersensitivity, allergy, anaphylaxis, risk assessment, physical examination, vital signs, blood pressure, blood pressure determination, pulse, physiologic monitoring, advanced cardiac life support, ACLS, nurse's role,* and *perioperative nursing.*

Excluded were non-peer-reviewed publications and studies that addressed moderate sedation, regional anesthesia, pediatric patients, or pregnant patients. Low-quality evidence was excluded when higher-quality evidence was available.

Number of Source Documents

63 full-text sources were cited in the guideline.

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

I: Randomized controlled trial (RCT) or experimental study, systematic review of all RCTs

II: Quasi-experimental study, systematic review of quasi-experimental studies or combination of quasi-experimental and RCTs

III: Non-experimental studies, qualitative studies, systematic review of non-experimental studies, combination of non-experimental, quasi-experimental, and RCTs, or any or all studies are qualitative

IV: Clinical practice guidelines, position or consensus statements

V: Literature review, expert opinion, case Report, community standard, clinician experience, consumer experience, organizational experience (quality improvement, financial)

Methods Used to Analyze the Evidence

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Articles identified in the search were provided to the lead author and divided and assigned to four evidence reviewers for review and critical appraisal using the Association of periOperative Registered Nurses (AORN) Research or Non-Research Evidence Appraisal Tools as appropriate. The lead author and the evidence reviewers independently evaluated and appraised the literature according to the strength and quality of the evidence. Each article was then assigned an appraisal score determined by consensus. The appraisal score is noted in brackets after each reference, as applicable.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

The evidence supporting each intervention and activity statement within a specific recommendation was summarized, and the Association of periOperative Registered Nurses (AORN) Evidence-Rating Model was used to rate the strength of the collective evidence. Factors considered in review of the collective evidence were the quality of evidence, the quantity of similar evidence on a given topic, and the consistency of evidence supporting a recommendation. The evidence rating is noted in brackets after each intervention.

Rating Scheme for the Strength of the Recommendations

Strength of Recommendations

1: Strong Evidence: Interventions or activities for which effectiveness has been demonstrated by strong evidence from rigorously-designed studies, meta-analyses, or systematic reviews, rigorously-developed clinical practice guidelines, or regulatory requirements.

- Evidence from a meta-analysis or systematic review of research studies that incorporated evidence appraisal and synthesis of the evidence in the analysis.
- Supportive evidence from a single well-conducted randomized controlled trial.
- Guidelines that are developed by a panel of experts, that derive from an explicit literature search methodology, and include evidence appraisal and synthesis of the evidence.

1: Regulatory Requirement: Federal law or regulation.

2: Moderate Evidence: Interventions or activities for which the evidence is less well established than for those listed under "1: Strong Evidence."

- Supportive evidence from a well-conducted research study.
- Guidelines developed by a panel of experts which are primarily based on the evidence but not supported by evidence appraisal and synthesis of the evidence.
- Non-research evidence with consistent results and fairly definitive conclusions.

3: Limited Evidence: Interventions or activities for which there are currently insufficient evidence or evidence of inadequate quality.

- Supportive evidence from a poorly conducted research study.
- Evidence from non-experimental studies with high potential for bias.
- Guidelines developed largely by consensus or expert opinion.
- Non-research evidence with insufficient evidence or inconsistent results.
- Conflicting evidence, but where the preponderance of the evidence supports the recommendation.

4: Benefits Balanced with Harms: Selected interventions or activities for which the Association of periOperative Registered Nurses (AORN) Recommended Practices Advisory Board (RPAB) is of the opinion that the desirable effects of following this recommendation outweigh the harms.

5: No Evidence: Interventions or activities for which no supportive evidence was found during the literature search completed for the recommendation.

- Consensus opinion

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

The Guideline for Care of the Patient Receiving Local Anesthesia has been approved by the Association of periOperative Registered Nurses (AORN) Guidelines Advisory Board. It was presented as a proposed guideline for comments by members and others. The guideline is effective January 15, 2015.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The lead author and the evidence reviewers independently evaluated and appraised the literature according to the strength and quality of the evidence. Each article was then assigned an appraisal score determined by consensus. The appraisal score is noted in brackets after each reference in the original guideline document, as applicable. Also see the original guideline document for the systematic review and discussion of evidence.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate management of the patient receiving local anesthesia to ensure safe perioperative care without undue pain and anxiety. Refer to the original guideline document for more information concerning benefits of specific interventions.

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

- These recommendations represent the Association's official position on questions regarding optimal perioperative nursing practice.
- No attempt has been made to gain consensus among users, manufacturers, and consumers of any material or product.

- Compliance with the Association of periOperative Registered Nurses (AORN) guideline is voluntary.
- AORN's recommendations are intended as achievable and represent what is believed to be an optimal level of patient care within surgical and invasive procedure settings.
- Although they are considered to represent the optimal level of practice, variations in practice settings and clinical situations may limit the degree to which each recommendation can be implemented.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Mobile Device Resources

Resources

Staff Training/Competency Material

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2014

Guideline Developer(s)

Association of periOperative Registered Nurses - Professional Association

Source(s) of Funding

Association of periOperative Registered Nurses (AORN)

Guideline Committee

Not stated

Composition of Group That Authored the Guideline

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Financial Disclosures/Conflicts of Interest

No financial relationships relevant to the content of this guideline have been disclosed by the authors, planners, peer reviewers, or staff.

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Electronic copies: Available to subscribers from the Association of periOperative Nurses (AORN) Web site [   ].

Print copies: Available for purchase from the AORN Web site [   ].

Availability of Companion Documents

The following is available:

- Guideline for care of the patient receiving local anesthesia evidence table. 2014. 13 p. Electronic copies: Available from the Association of periOperative Nurses (AORN) Web site [   ].

Additional implementation tools, including clinical FAQs, online learning modules, videos and community discussions are available from the AORN

[Web site]().

In addition, an AORN Guidelines for Perioperative Practice eBook mobile app is available from the [AORN Web site]().

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on January 19, 2015. The information was verified by the guideline developer on January 29, 2015.

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